

XENOY™ RESIN HX5600HP

REGION AMERICAS

DESCRIPTION

Xenoy HX5600HP is PBT based semi-crystalline blend with balanced flow and impact properties. Improved chemical resistance against lab disinfectants and chemicals for healthcare enclosure and housing applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI), EtO, Gamma and Steam sterilizable.

TYPICAL PROPERTY VALUES

Revision 20180807

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	50	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	52	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	150	%	ASTM D638
Tensile Modulus, 5 mm/min	2100	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	70	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2000	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Stress, break, 50 mm/min	55	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	100	%	ISO 527
Tensile Modulus, 1 mm/min	2050	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	75	MPa	ISO 178
Flexural Modulus, 2 mm/min	2050	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	750	J/m	ASTM D256
Izod Impact, notched, -30°C	600	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	80	J	ASTM D3763
Izod Impact, unnotched 80°10°4 -40°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	55	kJ/m²	ISO 180/1A
Izod Impact, notched 80°10°4 -30°C	25	kJ/m²	ISO 180/1A
Charpy -30°C, Unnotch Edgew 80°10°3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm	60	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	125	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	80	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	9.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	1.E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	125	°C	ISO 306
Vicat Softening Temp, Rate B/120	123	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm	105	°C	ISO 75/Bf

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CHEMISTRY THAT MATTERS™



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	80	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.22	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.7 – 1.1	%	SABIC method
Melt Flow Rate, 250°C/5.0 kgf	11	g/10 min	ASTM D1238
Density	1.22	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	0.4	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 250°C/5.0 kg	10	cm³/10 min	ISO 1133
Melt Viscosity, 260°C, 1500 sec-1	260	Pa-s	ISO 11443
INJECTION MOLDING			
Drying Temperature	90 – 100	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 270	°C	
Nozzle Temperature	250 – 265	°C	
Front - Zone 3 Temperature	250 – 270	°C	
Middle - Zone 2 Temperature	240 – 265	°C	
Rear - Zone 1 Temperature	230 – 250	°C	
Hopper Temperature	40 – 60	°C	
Mold Temperature	60 – 80	°C	

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